eSpatial

Verizon, United States

Verizon Enterprise Geospatial Application (VEGA): An award-winning web application for telecommunications network planning, built using iSMART®.

Background

The Verizon Enterprise Geospatial Application (VEGA) vision was to create a ubiquitous, open, and pure web-based application in support of telecommunications OSP (Outside Plant) business needs and additionally leveraging that environment for other, non-engineering related business opportunities. R&D was carried out during 2006.Development, using iSMART, started in earnest in 2007 to address OSP planning functions in support of Verizon's FiOS program to provide voice, high-speed internet and video services in a pure fibre network, connected directly to consumers' residences. This tool was deployed late 2007 and is fully available for all Verizon FiOS markets today.

The challenge

Verizon's core business challenge was how to increase efficiency in network rollout processes by integrating core design and other key processes in a single environment.

Key requirements

- Improve efficiencies in network rollout activities.

- Integrate business & geospatial processes.

- Single application across key functions.

- Functionality tied to specific roles.

- CAD style editing & data capture in web browser.

- Single database for all GIS, CAD and other data.

- Scalable enterprise architecture across company

The solution: VEGA

Using iSMART, Verizon established a single infrastructure upon which to deploy an integrated business application accessible throughout the enterprise. Use of web based technologies reduces installation, maintenance and license costs and delivers what is needed where it is needed – including CAD style editing in a browser.

 VEGA won Verizon GITA's Innovator Award in 2008. This prestigious international award recognises a user organisation that has pushed the envelope of geospatial technology through the innovative development of a unique technology, service, or application to produce a new benefit stream for geospatial technology users.

Benefits for Verizon

VEGA streamlines processes for planning and construction of Verizon's fibre networks. The application provides a single integrated access point into a number of key processes and departments involved in the network planning and rollout process thereby streamlining workflows. Traditionally, separate systems have been used for each phase of the process with time consuming and potentially error prone handovers of information between the relevant departments.

The VEGA application helps Verizon eliminate some of the traditional "stove pipes" seen in the integration of geospatial applications with other business systems. They have migrated from a vertical process view to a horizontal one where the application provides the flow between steps in their processes. In essence the geospatial and business applications have been fused into a single entity delivered as an enterprise-grade application with access from any web browser in the organisation.

Through the use of iSMART, VEGA delivers on its goals by utilising a novel approach to the use of geospatial technology using the latest IT standards and web technologies. These include:

- Migration of traditionally client based CAD functionality to a pure web browser based application which delivers controlled CAD drawing and editing functionality to users.

- Migration from the use of CAD files to the use of a central Oracle database to store all geospatial data.

- Use of roles based access techniques to provide specific data and functionality to end users based on their role in the organisation.

- Replication of the application across a number of Verizon sites providing a common access point across the organisation.

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Key features

- Single application across key functions.
- Roles based access relevant to user function.
- CAD features available via a web browser (including vertex editing, dynamic snapping and auto tracing over existing data).
- Single database for all GIS, CAD and other data.
- Scalable enterprise architecture across multiple Verizon sites.
- Seamless fit with Verizon's existing enterprise technical architecture.

Key benefits

- Significant cost savings in terms of reduced client licenses.

- Reduced development, deployment, and maintenance costs – no client install or maintenance required.

- Improved productivity in terms of ease of sharing consolidated, high quality data across the organisation in a timely manner.

- Improved efficiencies in network rollout activities.

- Increased visibility of geospatial data as part of core business processes – previously this would have existed in select units only.

- Use of web 2.0 capabilities provide an increased acceptance of use of a browser as delivery mechanism for information and data.

- Increased cultural acceptance of benefits of integrating business processes together in a single environment, thereby removing barriers between departments.

- Delivery of controlled functionality to end users – "what you need is what you get". Using traditional GIS tools users had the freedom to carry out functions which were not core to the business need (e.g. the ability or users to restyle data was deliberately removed in VEGA for most users). This is not just "greying out" options – the options don't appear if the user role doesn't require them.

- Increased visibility of the benefits of integrating geospatial and non-geospatial data in a single environment – GIS is no longer "special".

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> *"To develop VEGA (Verizon Enterprise Geospatial Application) we made extensive use of iSMART for the core development environment. It provided us with a range of sophisticated pure Web Editing capabilities allowing a custom geospatial application to be authored for delivery in a web browser. This includes the ability for multiple users to carry out CAD-like editing and maintenance activities on our geospatial data from any web browser."*
>
> *Rao Tanuku, Director, Verizon*

About iSMART

iSMART transforms data with a geographic component into easily-understood maps, charts and graphs that can be interpreted to provide actionable business insights.

Combining the latest innovations in software delivery and usability with the full functionality of a Geographic Information System (GIS), iSMART makes location intelligence available to any organisation.

iSMART is an affordable, predictable, and scalable location intelligence tool, suitable for both GIS experts and newcomers to location intelligence alike. It also provides an ideal enterprise grade hosted services delivery platform for geospatial applications.

About eSpatial

eSpatial is a leading provider of Geographic Information Systems (GIS), and a pioneer in the provision of location intelligence delivered via Software-as-a-Service (SaaS).

Our flagship product, iSMART, has pioneered the availability of a full-function GIS or location intelligence tool with SaaS delivery.

As an established presence in the GIS and location intelligence space, eSpatial has developed considerable expertise and intellectual property in spatial software use and development.

We are proud to work with leading technology partners such as Oracle, NAVTEQ and Digital Globe; and to count many leading organisations amongst our global customer base.

eSpatial is headquartered in Dublin, Ireland.

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